

Figure 1

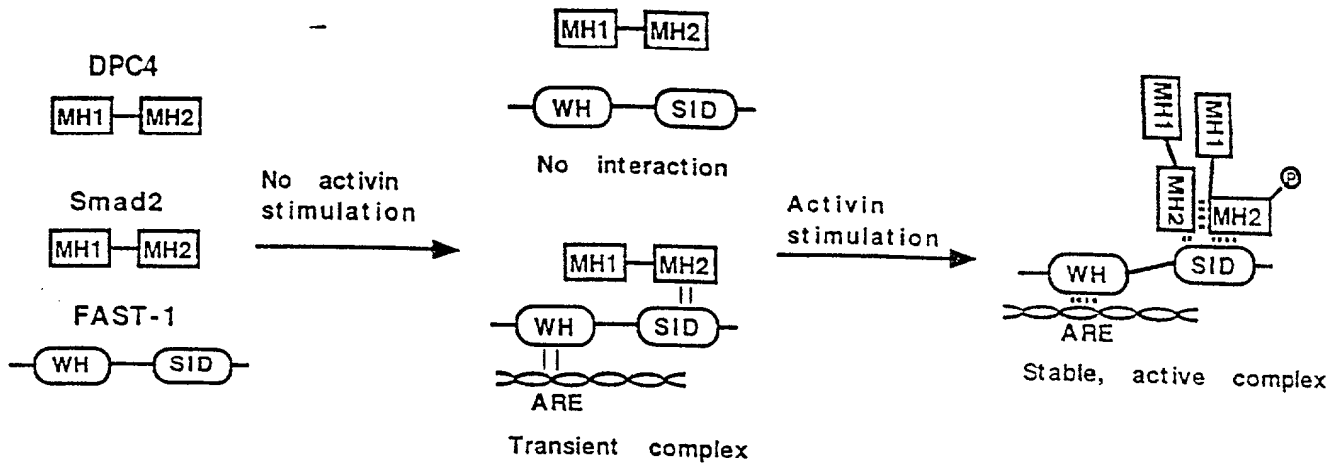


Figure 2

act to inhibit

Smad4	-	-	-	-	+	+	-	+
Smad4-HA	-	+	-	-	-	-	+	+
Activin	-	-	+	+	+	+	+	+
Anti-HA antibody	-	-	+	-	-	+	-	+

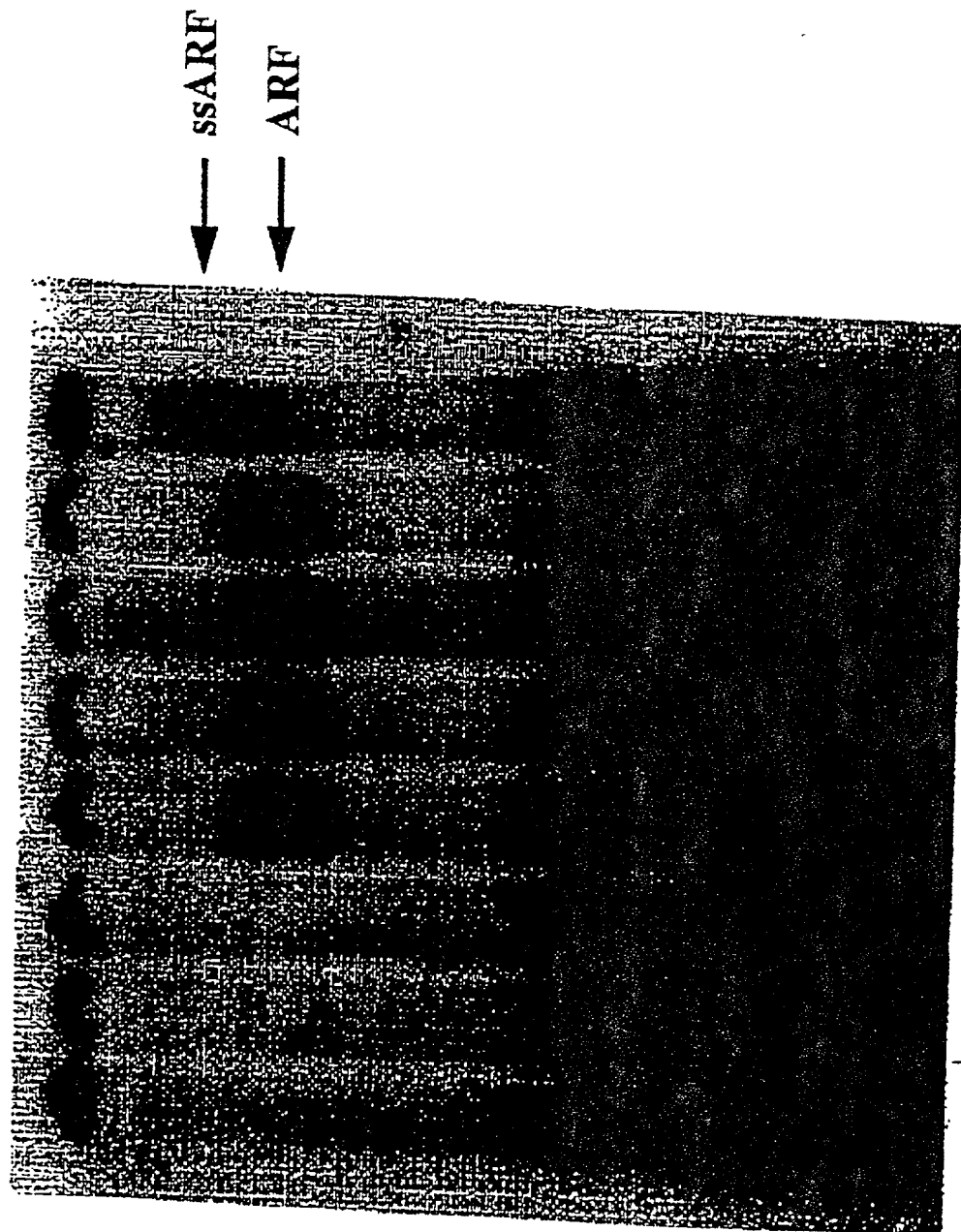


Figure 3

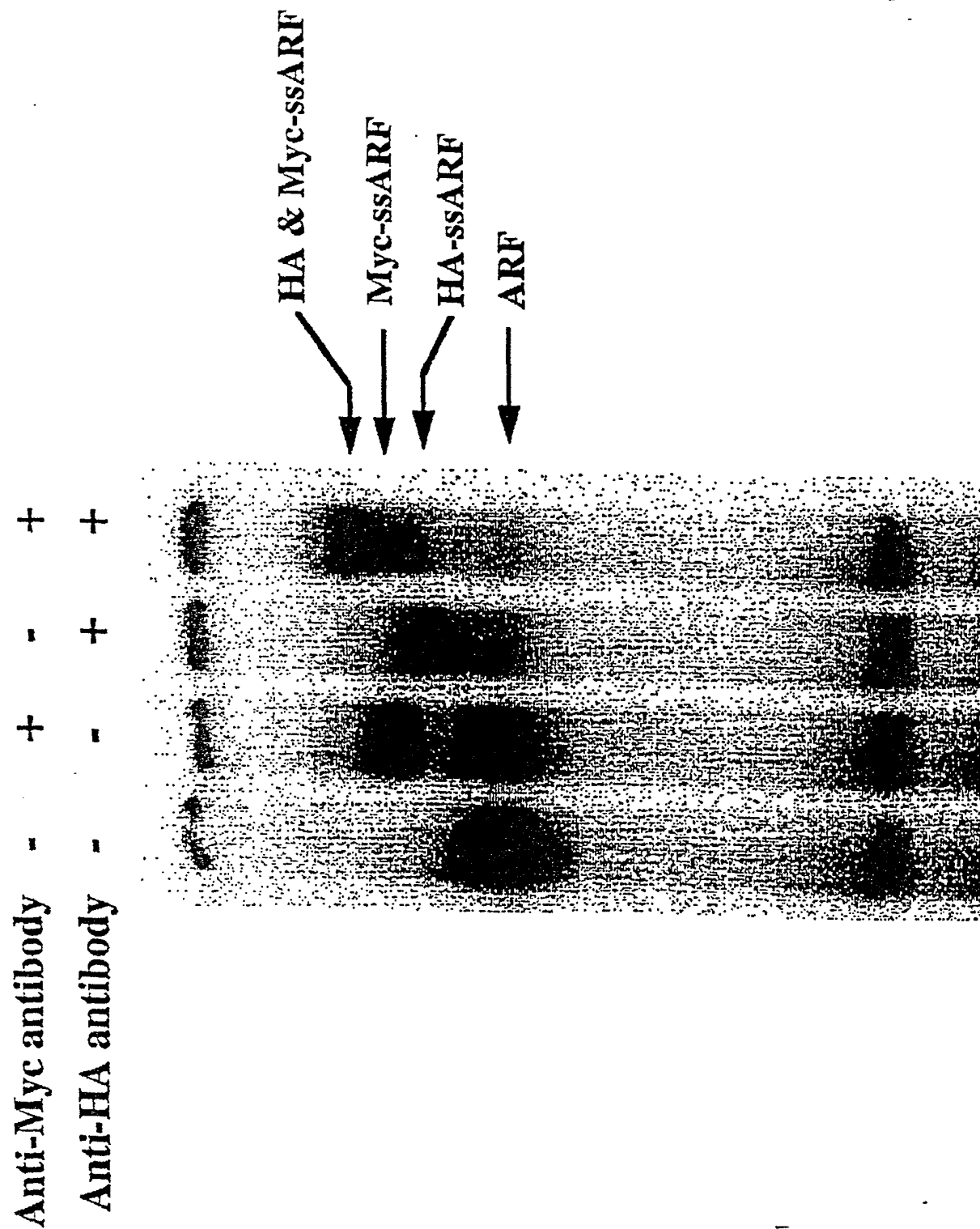


Figure 4

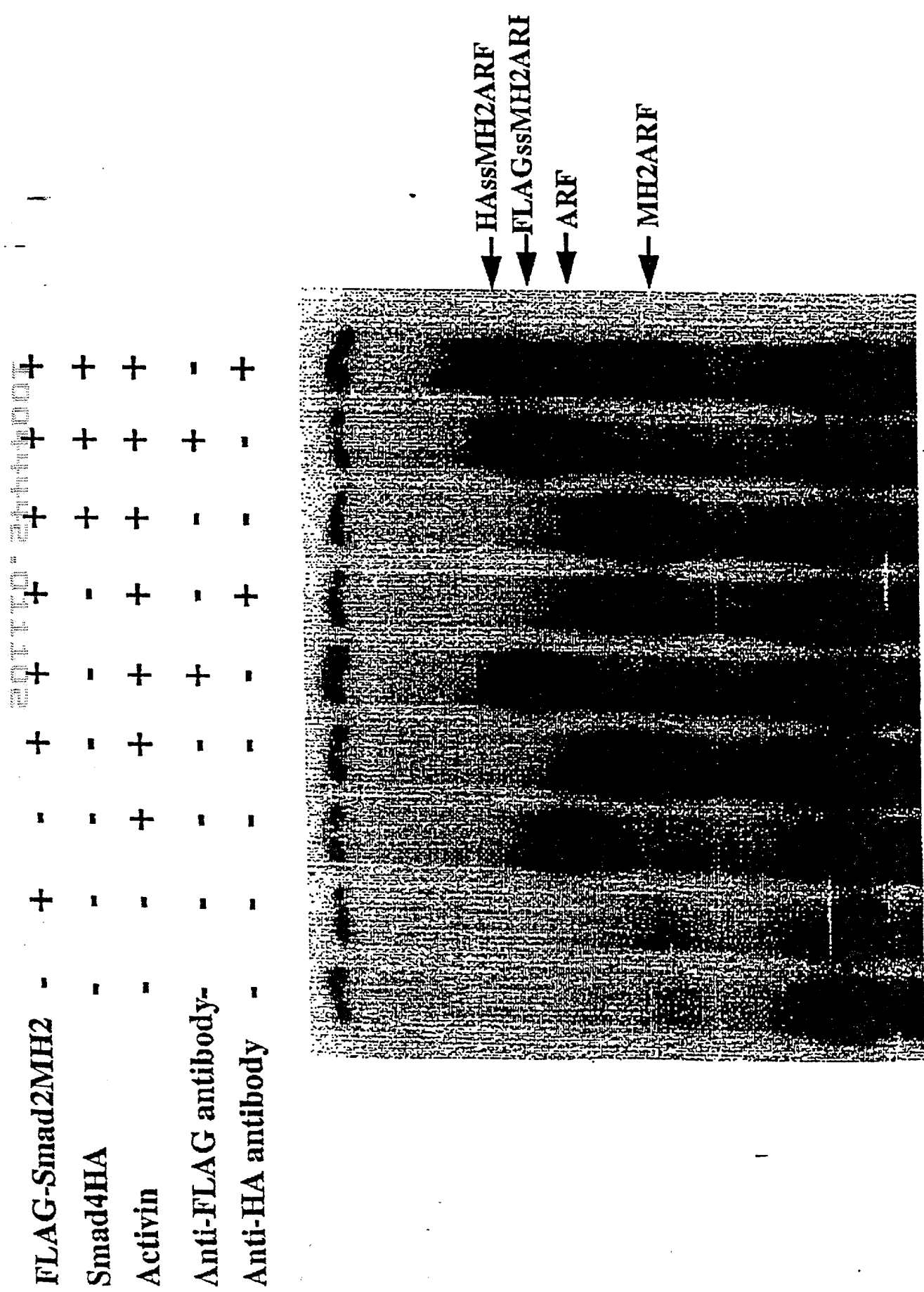


Figure 5A

200T10" 24444400T

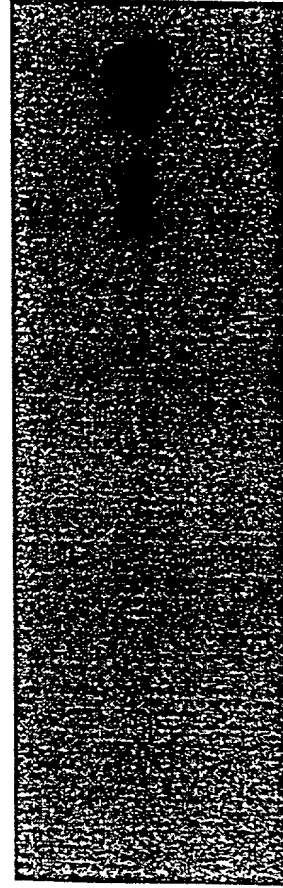
GST-FAST-1

Myc-Smad1

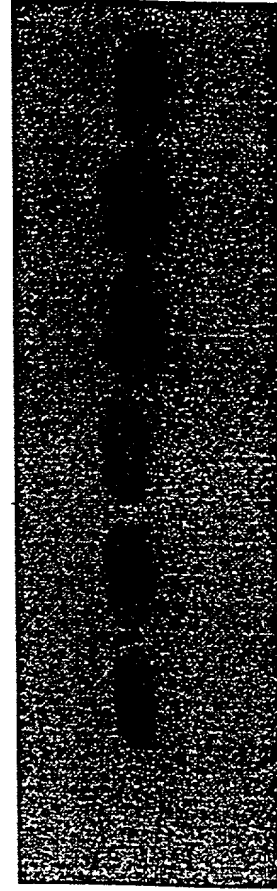
Myc-Smad2

Activin

+	-	+	+	+	+	+
-	+	+	+	-	-	-
-	-	-	-	+	+	+
-	-	-	+	-	-	+



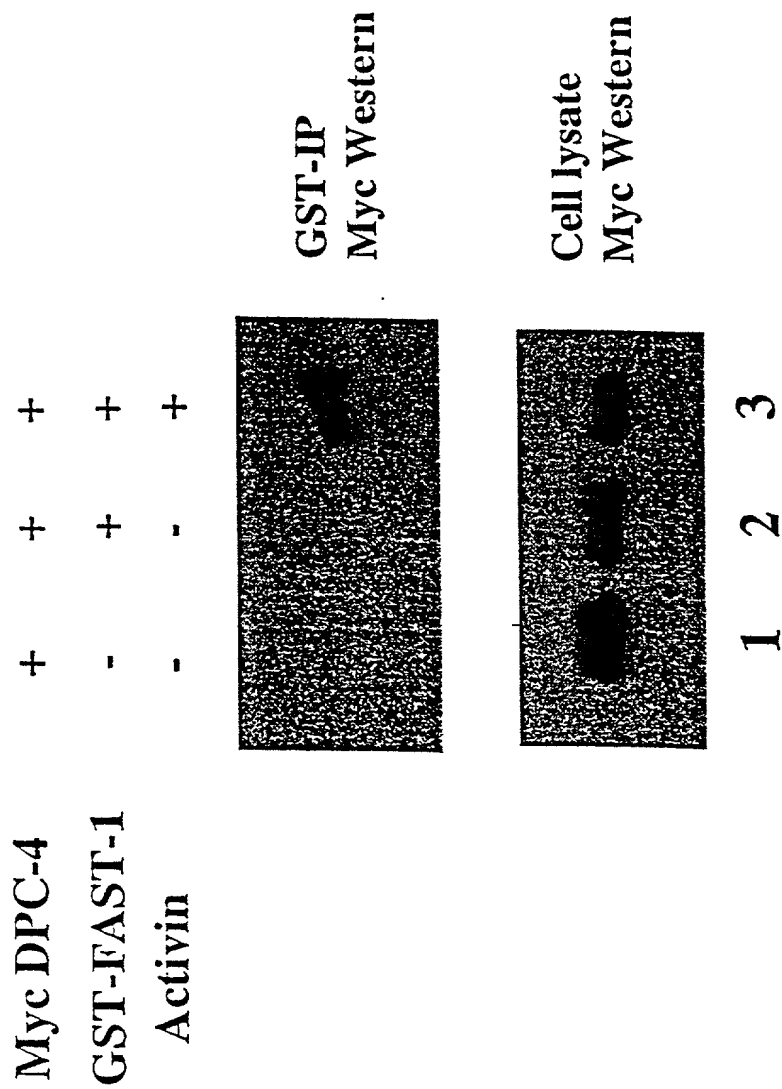
GST-IP
Myc Western



Cell lysate
Myc Western

1 2 3 4 5 6 7

Figure 5B continued






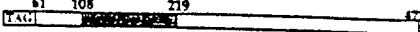
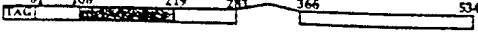
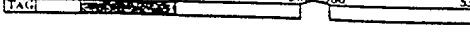
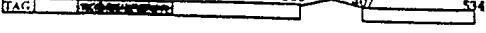
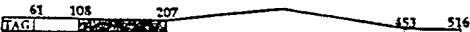
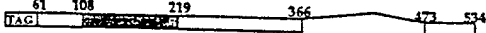



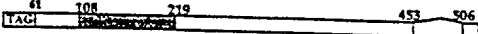
	ARF/ARE Formation	Smad2 Ass-Act	ation +Act	DPC4 Association +Act
61-534: 	+++	+	+++	+++
Δ516-534: 	+++	+	+++	+++
Δ506-534: 	+++	+	+++	+++
Δ473-534: 	-	-	-	-
Δ281-366: 	+++	+	+++	+++
Δ366-380: 	+++	+	+++	+++
Δ366-407: 	-	+	+++	-
Δ207-453: 	-	+	+++	-
Δ366-473: 	-	+	++	-
Δ1-366: 	-	+	+++	+++
Δ366-534: 	-	-	-	-
Δ380-407: 	-	+	+++	-
Δ453-506: 	-	-	-	-

Figure 6B

Summary:

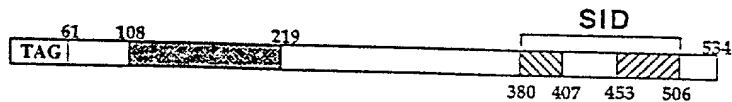
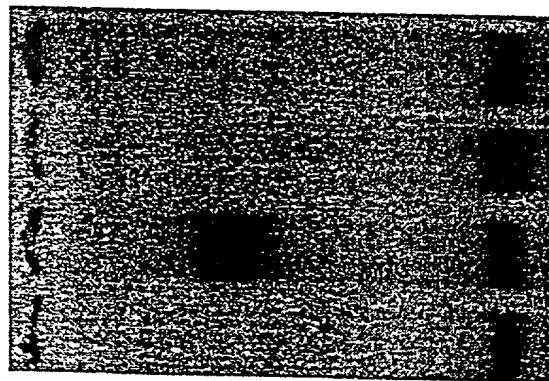


Figure 7

FAST-1 366-534 - - + +

Activin - + + + -



1 2 3 4

Figure 8A

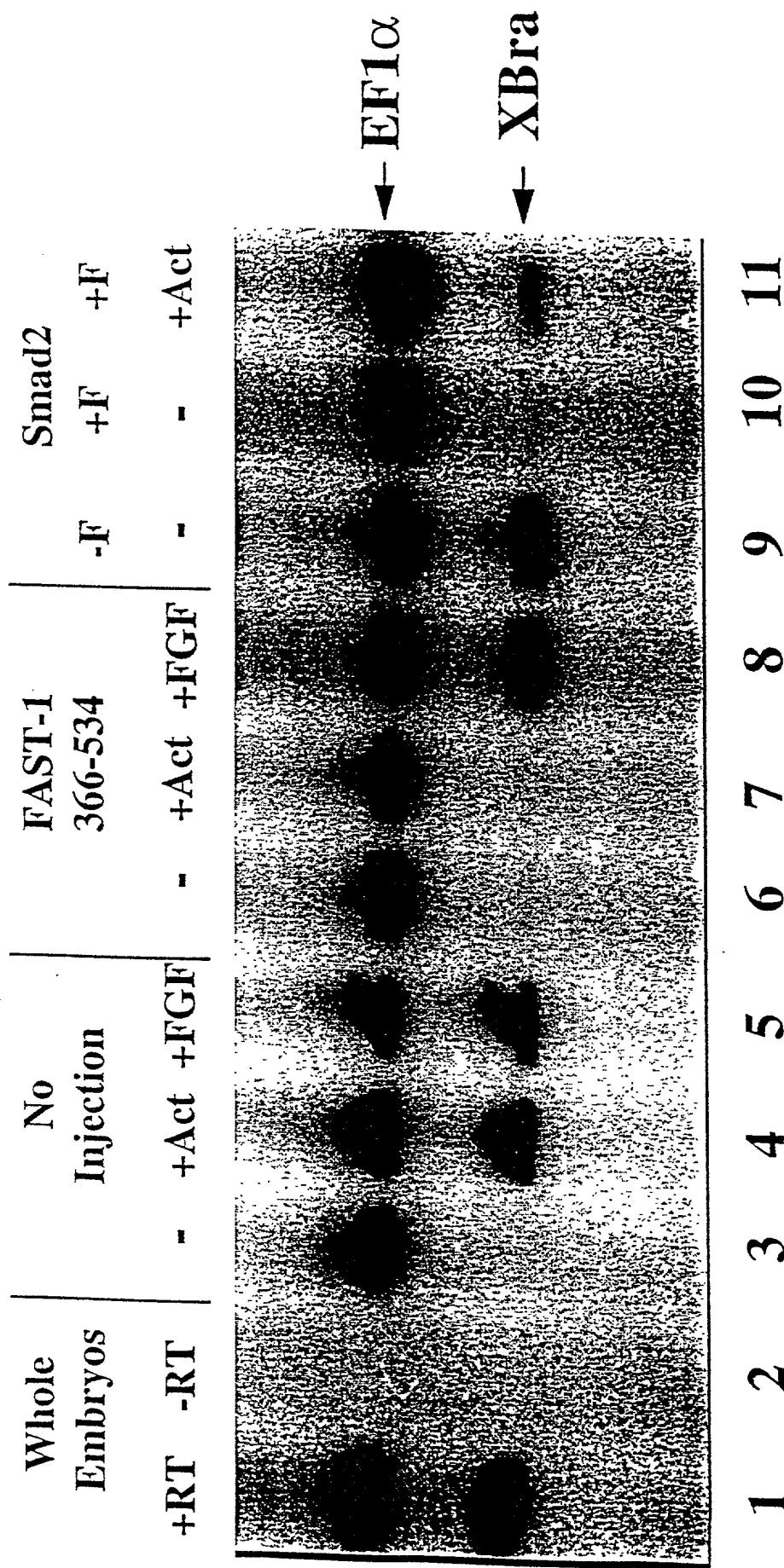
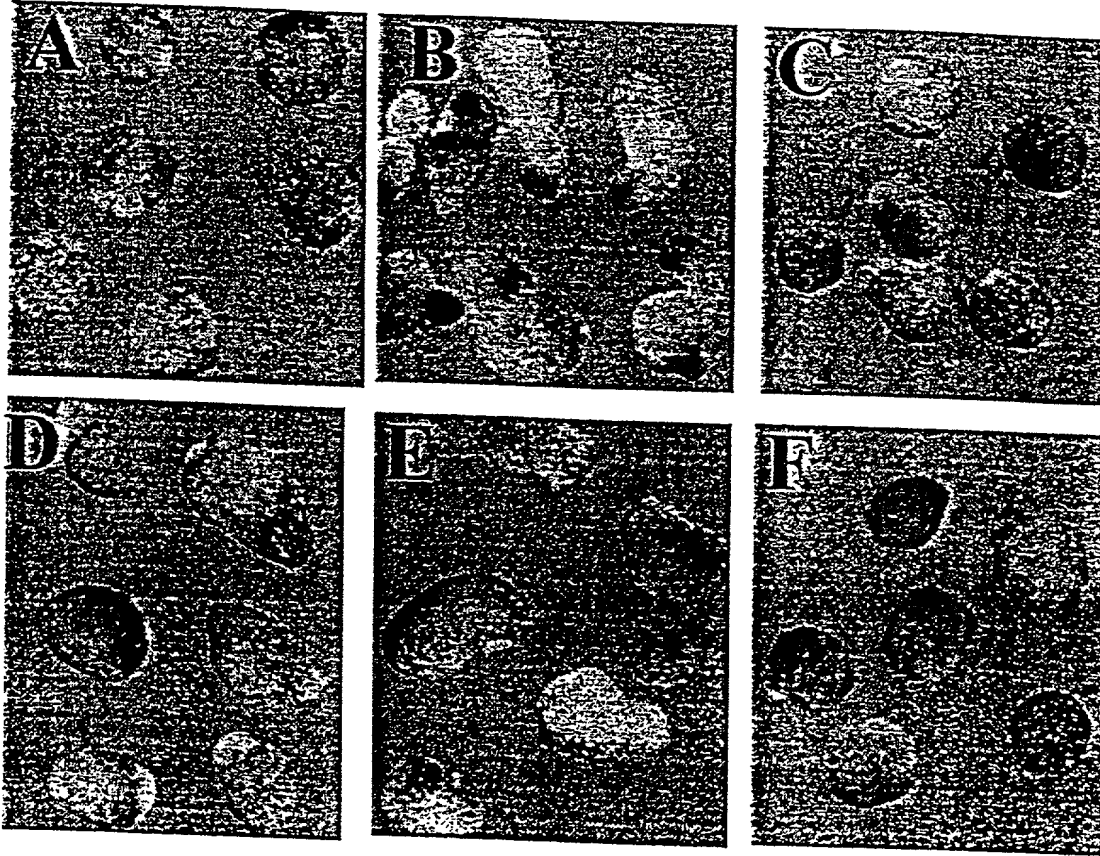


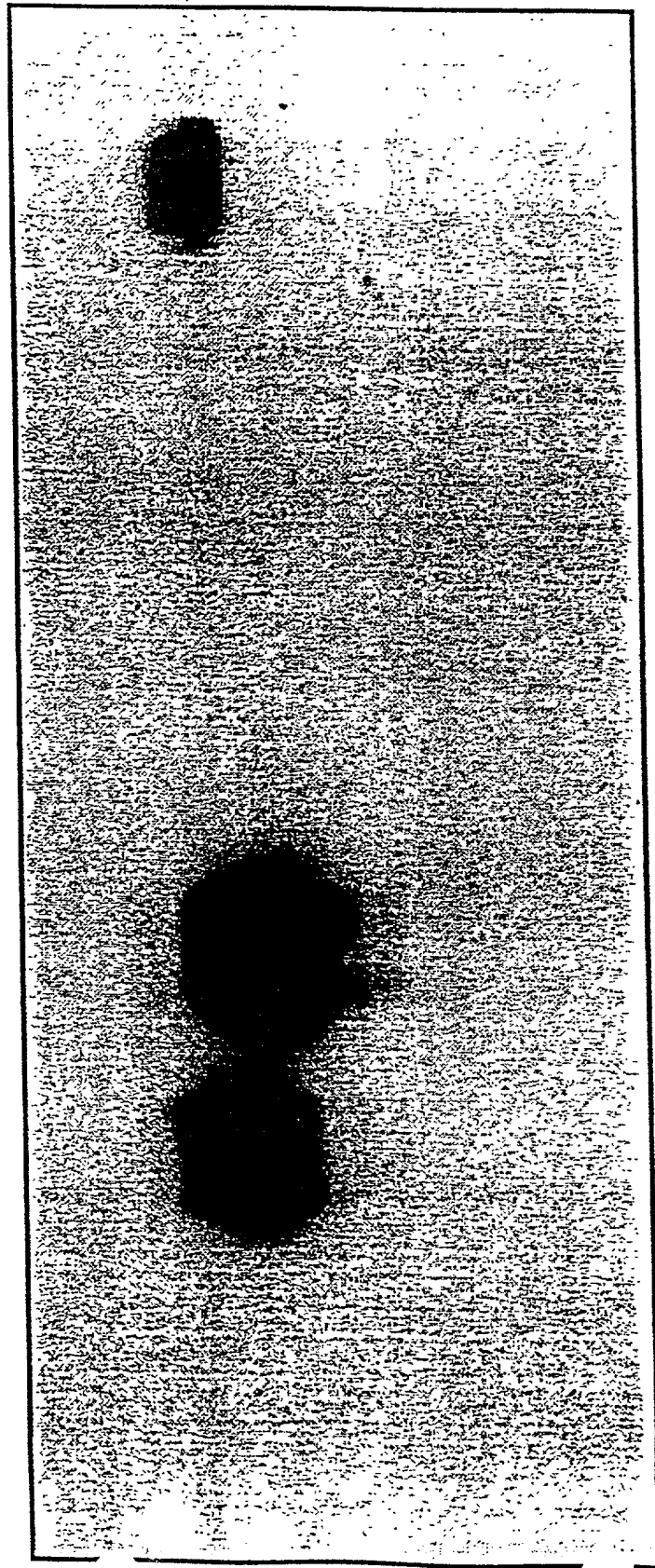
Figure 8B



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Figure 9

1 2 3 4 5 6 7



1 M - - - - - human FASTII protein sequence
 1 M - - - - - mouse FASTII protein sequence
 1 M R D P S S L Y S G F P A G S Q Y E S V E P P S L A L L S S xenopus FASTII protein sequence

2 - - - - - human FASTII protein sequence
 2 - - - - - mouse FASTII protein sequence
 31 I D Q E Q L F V A T G Q S Y N H S V Q P W F Q P W P P L S L xenopus FASTII protein sequence

2 - - - - - G - - - - human FASTII protein sequence
 2 - - - - - A S G W D L A mouse FASTII protein sequence
 61 Y R E G G T W S P D R G S M Y G L S P G T H E G - - - - xenopus FASTII protein sequence

3 - - - - - F C S G S R - - - human FASTII protein sequence
 9 S T Y T P T T P S P Q I A L A P A Q G Y L P C M G P R D N S mouse FASTII protein sequence
 85 - - - - - S C T H T H - - - xenopus FASTII protein sequence

9 - L G P P E - - A E S P S Q P P K R R K K R Y L R H D K P P human FASTII protein sequence
 39 Q L R P P E - - A E S L S K T P K R R K K R Y L R H D K P P mouse FASTII protein sequence
 91 - E G P K D S M A G D Q T R S R S K K K K H H R Y N K P P xenopus FASTII protein sequence

36 Y T Y L A M I A L V I Q A A P S R R L K L A O I I R Q V Q A human FASTII protein sequence
 67 Y T Y L A M I A L V I Q A A P F R R L K L A - - - Q V Q A mouse FASTII protein sequence
 120 Y S Y L A M I A L V I Q N S P E K R L K L S Q I L K E V S T xenopus FASTII protein sequence

66 V F P F F R E D Y E G W K D S I R H N L S S N R C F R K V P human FASTII protein sequence
 93 V F P F F R D D Y E G W K D S I R H N L S S N R C F H K V P mouse FASTII protein sequence
 150 L F P F F N G D Y M I G W K D S I R H N L S S S D C F K K I L xenopus FASTII protein sequence

65 K D P A K P Q A K G N F W A V D V S L I P A E A L R L Q N T human FASTII protein sequence
 123 K D P A K P Q A K G N F W A V D V S L I P A E A L R L Q N T mouse FASTII protein sequence
 180 K D P G K P Q A K G N F W T V D V S R I P L D A M K L Q N T xenopus FASTII protein sequence

126 A L C R R W Q N G G A R G A F A K D L G P Y V L H - - - - human FASTII protein sequence
 153 A L C R R W Q N R G T H R A F A K D L S P Y V L H - - - - mouse FASTII protein sequence
 210 A L - - - - - T R G G S D Y F V Q D I A P Y I L H N Y K Y E xenopus FASTII protein sequence

151 - - G R P Y R P P S P P P P P S E - - - - human FASTII protein sequence
 178 - - G Q P Y Q P P S P P P P P R E - - - - mouse FASTII protein sequence
 235 H N A G A Y G H Q M P P S H A P S L S L A E D S Q Q T N T G xenopus FASTII protein sequence

166 - - - - - G F S I K S L L R R S G E - - - - G A P W P - - - human FASTII protein sequence
 193 - - - - - G F S I K S L L G D P G K - - - - E S T W P Q H P mouse FASTII protein sequence
 265 G K L N T S E M I D S L L H D L Q E V D L P D N S - R - - xenopus FASTII protein sequence

134 G L A P Q N S P V P A G - - - - - T G N N G E human FASTII protein sequence
 214 G L P G Q S T A R Q A G - - - - - T L S K G E mouse FASTII protein sequence
 291 N L E N Q R I S P A V A X X M V S S A P L I Y T H S K P T xenopus FASTII protein sequence

202 E A V P T P P P P S S E R P I W P L C P I P G P T R V E G E human FASTII protein sequence
 232 E G M G T G P S S S S E T P L W P L C S I P G P T I I E G E mouse FASTII protein sequence
 321 R N A R S E G L S T I H S T Y - - - - S S S S S S I S T I S xenopus FASTII protein sequence

232 T V I - - Q G G A X G P Q P S E Q S L G P - G I S T T A G H R human FASTII protein sequence
 262 S S - - Q G E V I R P S E V T P D Q G S W P L H L L E D S A mouse FASTII protein sequence
 347 P V G F Q K E Q E N S G R Q T Q R V G H - P I H R S R E D D xenopus FASTII protein sequence

Figure 10 (page 1 of 2)

259	S	S	G	G	R	S	E	G	G	H	R	A	-	-	-	-	-	-	-	-	-	-	-	-	L	W	G	Q	L	human FASTI protein sequence				
290	D	S	R	G	V	P	R	R	G	S	R	A	-	-	-	-	-	-	-	-	-	-	-	-	L	W	G	Q	L	mouse FASTI protein sequence				
376	C	S	T	T	S	E	D	P	D	T	G	.	Y	S	P	I	E	P	P	R	K	M	P	L	L	S	L	D	L	xenopus FASTI protein sequence				
	<div style="text-align: center;"> \uparrow Start Site mouse </div>																																	
277	P	T	S	Y	L	P	I	Y	T	P	N	V	V	M	P	L	A	P	-	-	-	-	-	-	-	-	-	-	-	human FASTI protein sequence				
308	P	T	S	Y	L	P	I	Y	T	P	N	V	V	M	P	L	A	T	L	P	-	-	-	-	-	-	-	-	-	mouse FASTI protein sequence				
406	P	T	S	Y	T	K	S	V	A	P	N	V	V	M	P	P	S	V	L	P	F	F	H	F	P	R	F	T	Y	Y	xenopus FASTI protein sequence			
	<div style="text-align: center;"> \uparrow Start Site mouse </div>																																	
296	-	-	-	P	T	S	C	P	Q	C	P	S	-	T	S	P	A	Y	N	G	-	-	-	-	-	-	-	-	-	-	human FASTI protein sequence			
328	-	-	-	T	T	S	C	P	Q	C	P	S	S	A	S	P	A	Y	N	S	-	-	-	-	-	-	-	-	-	-	mouse FASTI protein sequence			
436	N	Y	G	E	S	-	-	-	-	-	-	-	-	P	Y	-	N	T	P	P	T	N	E	F	F	H	P	T	N	S	G	G	D	xenopus FASTI protein sequence
315	E	T	R	G	P	P	G	L	L	C	D	L	M	A	L	F	Q	G	V	P	P	N	K	S	I	Y	D	V	W	V	human FASTI protein sequence			
348	E	S	Q	G	S	Q	L	L	C	D	L	D	S	L	F	Q	G	V	P	P	N	K	S	I	Y	D	V	W	V	mouse FASTI protein sequence				
460	S	P	R	G	P	C	S	P	L	-	D	L	D	N	M	L	R	A	M	P	P	N	K	S	V	F	D	M	L	T	xenopus FASTI protein sequence			
345	S	H	P	R	D	L	A	A	P	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	human FASTI protein sequence			
378	S	H	P	R	D	L	A	A	P	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	mouse FASTI protein sequence			
489	S	H	E	G	D	L	V	H	P	S	F	L	S	Q	C	L	G	S	S	G	S	P	T	P	S	R	Q	G	L	M	xenopus FASTI protein sequence			
355	-	-	-	-	-	P	G	W	L	L	S	W	C	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	human FASTI protein sequence			
388	-	-	-	-	-	P	G	W	L	L	S	W	Y	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	mouse FASTI protein sequence			
519	Y	R	R	R	P	P	G	-	-	L	T	W	S	G	H	S	M	H	Z	-	-	-	-	-	-	-	-	-	-	-	xenopus FASTI protein sequence			

Figure 10 (page 2 of 2)